WHAT IS CLAIMED IS:

1. An aggregate link process comprising the steps of:

providing cooperating link aggregation member devices defining a link aggregation;

connecting an end device via network links to each of the respective link aggregation member devices of the link aggregation, the network links defining an aggregate link; and

coordinating member devices of the link aggregation by repeating packets of predetermined packet type at the end device including receiving a packet from an originating link aggregation member via a network link and repeating the packet by sending the packet back to the originating link aggregation member and/or to the other link aggregation member devices.

2. The aggregate link process according to claim 1, wherein a packet type received from the link aggregation is determined from information in a link aggregation database.

3. The aggregate link process according to claim 2, wherein the step of coordinating includes using a link aggregation repeater process control parser/multiplexer (LARP control parser/multiplexer) connected to the network links, the LARP control parser/multiplexer communicating in both directions with a link aggregation sublayer (LAG sublayer).

4. The aggregate link process according to claim 3, wherein the LAG sublayer maintains the link aggregation database (LAG DB) which stores information as to one of:

which of the network links are a member of the aggregate link; and

which aggregate link and any other aggregate link is each network link a member of.

5. The aggregate link process according to claim 3, further comprising:

providing a media access controller (MAC) client as part of the end device, the LAG sublayer communicating in both directions with the MAC client.

6. The aggregate link process according to claim 3, wherein the step of coordinating comprises reading from the LAG DB and communicating in both directions to the LARP control parser/multiplexer.

7. The aggregate link process according to claim 3, wherein the LARP control parser/multiplexer tests packets received by the end device to determine the type of packet and directs packets of a coordinating system type to the LAGRP and directs packets of another type to the LAG sublayer for ordinary processing.

8. The aggregate link process according to claim 3, wherein the LARP control parser/multiplexer forwards packets that are transmitted to the LARP control parser/multiplexer by the LAG sublayer or by the LAGRP to the MAC of the end device unchanged and untested.

9. A process for an aggregate link process, the process comprising the steps of:

forming a link aggregation with switches as link aggregation member devices;

connecting devices to the link aggregation with each device connected via a network link to each member device to provide plural network links between each device and the link aggregation defining an aggregate link;

coordinating the member devices of the link aggregation by selectively repeating a packet transmission received at one of the connected devices from one link aggregation member device to the other link aggregation member devices to provide coordinating information.

10. The process according to claim 9, wherein selectively repeating a packet transmission includes:

determining a packet type received from the link aggregation and if the packet is one of predetermined packet types, the coordinating system either sending the packet back to the originating link aggregation member device or to the other link aggregation member devices to provide the repeating;

providing the coordinating system with a link aggregation repeater process control parser/multiplexer (LARP control parser/multiplexer) connected to each network link, each LARP control parser/multiplexer communicating in both directions with a link aggregation sublayer (LAG sublayer) of the end device;

using the LAG sublayer for maintaining a link aggregation database (LAG DB) which stores information as to the network links that are a member of an aggregate link and the

aggregate link and any other aggregate link that each network link is a member of;

providing the coordinating system with a link aggregation repeater process (LAGRP) which reads from the LAG DB and communicates in both directions to said LARP control parser/multiplexer; and

using the LARP control parser/multiplexer to test packets received by the end device to determine the type of packet and directing packets of a coordinating system type to the LAGRP and directing packets of another type to the LAG sublayer for ordinary processing.

11. The process according to claim 10, wherein the LARP control parser/multiplexer forwards packets that are transmitted to the LARP control parser/multiplexer by the LAG sublayer or by the LAGRP to the media access controller (MAC) of the end device unchanged and untested.

12. The process according to claim 10, wherein packets directed to the LAGRP from one of the LARP control parser/multiplexer is handled in a receive packet routine including first testing the packet field to determine what kind of packet it is and if the field matches with a constant value sending the packet back to the originating network link aggregation member by calling a transmit packet routine with a source port of the packet as the destination port parameter and if the field in the packet matches with another constant value, then calling a routine to send the packet to all ports in the aggregate link other than the source port.

13. The process according to claim 12, wherein the routine reads the LAG DB to get

the identification of the aggregate link associated with the source link and the routine reads the LAG DB again to get a list of all the network links associated with the source port's aggregate link.

14. The process according to claim 12, wherein the LAGRP takes the step of:

filling a macsa field with a source MAC address according to the IEEE 802.1 specification;

filling the macda field with the MAC address of the end device port that is connected to the network link that the packet will be transmitted on;

filling in an ethertype field with the to be assigned EtherType value for the LAGRP protocol;

filling in a lagRpVersion field with a value corresponding to the version;

filling in a lagRpType value with a constant "lagRpEcho" or "lagRpForward";

filling the repeatMacDa field with the MAC address that the LAGRP wants the LAGRP to put into the macda field when repeating the packet; and

filling the rest of the packet with the data that it wishes to transmit to other cluster members.

15. The process according to claim 12, wherein the transmit packet routine, takes the step of:

putting the contents of a repeatMacDa field into a macda field of the packet;

filling the macsa field of the packet with the MAC address assigned to the port that the

packet is to be transmitted out of; and

transmitting the packet out to the network link by transmitting it to the LARP control parser/multiplexer associated with a port of the end device, which port will transmit the packet to the MAC, which will transmit it out onto the network link,

and wherein the receive packet routine, for each network link, takes the step of:

testing to see if the network link is the source port, and if it is skipping the link and going on to the next network link; and

call the transmit packet routine with the packet and the network link as a parameter.

16. The process according to claim 12, wherein the transmit packet routine, takes the step of:

putting the MAC address of the port of the link aggregation member device on the other side of the link into a macda field of the packet;

filling the macsa field of the packet with the MAC address assigned to the port that the packet is to be transmitted out of; and

transmitting the packet out to the network link by transmitting it to the LARP control parser/multiplexer associated with a port of the end device, which port will transmit the packet to the MAC, which will transmit it out onto the network link and wherein the LAGRP can indicate its existence and state in the link aggregation packets that the link aggregation process transmits to support link aggregation including a simple condition value to indicate:

if the lag repeater process is running; and

if the lag repeater process is not running.

17. A aggregate link system comprising:

cooperating link aggregation member devices formed of switches defining a link aggregation;

connected devices with each connected device connected to each link aggregation member by a respective network link with one or more network link defining an aggregate link;

a coordinating means for coordinating the link aggregation member devices, said coordinating means for determining at a connected device a packet type received from the link aggregation and if the packet is one of predetermined packet types either sending the packet back to the originating link aggregation member device or to the other link aggregation member devices.

18. The system according to claim 17, wherein said coordinating means comprises:

a link aggregation repeater process control parser/multiplexer (LARP control parser/multiplexer) connected to each link, each LARP control parser/multiplexer communicating in both directions with a link aggregation sublayer (LAG sublayer) of the connected devices;

a LAG sublayer for maintaining a link aggregation database (LAG DB) which stores information as to the network links that are a member of an aggregate link and the aggregate link and any other aggregate link that each network link is a member of;

a link aggregation repeater process (LAGRP) which reads from the LAG DB and communicates in both directions to said LARP control parser/multiplexer, the LARP control

parser/multiplexer testing packets received by the connected devices to determine the type of packet and directing packets of a coordinating system type to the LAGRP and directing packets of another type to the LAG sublayer for ordinary processing.

19. The system according to claim 17, wherein said coordinating means further comprises:

an intra-cluster interconnect connecting said link aggregation member devices;

a detection means for indicating to one of said aggregation member devices the ability for the connected devices to provide coordinating system features; and

a repeater means initiated at said connected devices and communicating with the aggregation member devices via said network links, said system using one of said repeater process and said intra-cluster interconnect based on the results of said detection process and the functional state of said intra-cluster interconnect.

20. The system according to claim 19, wherein said coordinating means determines a packet type received from said link aggregation and if the packet is one of predetermined packet types the coordinating system either sends the packet back to the originating link aggregation member device as part of said detection process and/or to the other link aggregation member devices as part of said repeater process.